

**AMENDMENT No - I**

**Dated 08.06.2016**

**Subject: Amendment to the tender Enquiry Document**

**Ref: Tender Enquiry No.: HSCC/SJH/Med. Eqpt./18 dated 18.05.2016**

**Existing as :**

| <b>Sl. No.</b> | <b>Description</b>                                      | <b>Schedule</b>                 |
|----------------|---|---------------------------------|
| i.             | Closing date & time for receipt of Tender               | <b>08.06.2016, 1430 hrs IST</b> |
| ii.            | Time and date of opening of Techno - Commercial tenders | <b>08.06.2016, 1500 hrs IST</b> |

**To be read as :**

| <b>Sl. No.</b> | <b>Description</b>                                      | <b>Schedule</b>                 |
|----------------|---|---------------------------------|
| i.             | Closing date & time for receipt of Tender               | <b>16.06.2016, 1430 hrs IST</b> |
| ii.            | Time and date of opening of Techno - Commercial tenders | <b>16.06.2016, 1500 hrs IST</b> |

**Existing as : NOTICE INVITING TENDERS (NIT) - On E-TENDER BASIS**

| <b>Sr. No</b> | <b>Equipment Details</b>             | <b>QTY/Requirements</b>          | <b>EMD (INR)</b> |
|---------------|--------------------------------------|----------------------------------|------------------|
| 4.            | Operation Table for Urology          | 4 Nos. for SSB Block             | 1,20,000.00      |
| 6.            | Operations Table for General Surgery | 4 Nos. in OT for Emergency Block | 1,20,000.00      |

**To be read as: NOTICE INVITING TENDERS (NIT) - On E-TENDER BASIS**

| <b>Sr. No</b> | <b>Equipment Details</b>             | <b>QTY/Requirements</b>           | <b>EMD (INR)</b> |
|---------------|--------------------------------------|-----------------------------------|------------------|
| 4.            | Operation Table for Urology          | 2 Nos. for SSB Block              | 60,000.00        |
| 6.            | Operations Table for General Surgery | 14 Nos. in OT for Emergency Block | 4,20,000.00      |

**COMMERCIAL AMENDMENTS**

**SECTION – IX**

**QUALIFICATION CRITERIA**

**Existing as :**

2. (a) A Tenderer quoting as Manufacturer should have supplied and installed in last Five years from the date of Tender Opening, at least 50% of the quoted quantity of the similar equipment which is functioning satisfactorily in Government Hospitals / Private Hospitals / PSU Hospital/ UN Agencies/Laboratories anywhere in India. Tenders shall submit Performance Certificate / Installation reports & Order Copies in respect of the above.

2. (b) A Tenderer quoting as authorized representative of the manufacturer should have executed at least one contract in the last five years from the date of tender opening of similar equipment which is functioning satisfactorily, in Government Hospitals/Private Hospitals/PSU Hospital/UN Agencies/Laboratories anywhere in India. Tenders shall submit Performance Certificate / Installation reports & order copies in respect of the above.

**To be read as :**

2. (a) The Manufacturer should have supplied and installed in last Five years from the date of Tender Opening, at least 33 % of the quoted quantity of the similar equipment meeting major parameters of technical specification which is functioning satisfactorily.

2 (b). The Tenderer quoting as authorized representative of the manufacturer meeting the above criteria 2 (a) should have executed at least one contract in the last five years from the date of tender opening of similar equipment meeting major parameters of Technical specification which is functioning satisfactorily, anywhere in India of the same manufacturer.

**SECTION - IV**  
**GENERAL CONDITIONS OF CONTRACT (GCC)**

**Liquidated damages:**

**Existing as :**

23.1 Subject to GCC clause 26, if the supplier fails to deliver any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the

Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 24.

During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

**To be read as:**

23.1 Subject to GCC clause 26, if the supplier fails to deliver any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 24.

During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

23.2 In the event of delay in submission of Proforma Invoice beyond 7 working days from the date of notification of award, the delay shall be to the account of supplier & Purchaser shall deduct Liquidated damages, as per clause 23.1. Proforma Invoice should be strictly as per the terms & conditions mentioned in Notification of Award / Tender Conditions.

23.3 Proforma Invoice submitted by supplier is found to be deficient, because of which purchaser is unable to open the letter of credit, delay shall be to the account of supplier & purchaser shall deduct liquidated damages as per clause 23.1.

## **SECTION VII**

### **TECHNICAL SPECIFICATION**

#### **ITEM NO . 1 Automatic Haematology Cell Counter with Reticulocyte Count**

**Existing as:** Parameters to be measured are -WBC, LYM%, LYM, MON%, MON, GRA%, GRA, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, MPV, PCT, PDW. Retic, Retic% NE, NE% L4, L4%, MO, MO%, EO, EO%, BA, BA%, IG with NRBC Flagging.

**Amended to be read as:** Parameters to be measured are -WBC, LYM%, LYM, MON%, MON, GRA%, GRA, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, MPV, PCT, PDW. Retic, Retic% NE, NE% L4, L4%, MO, MO%, EO, EO%, BA, BA%, IG with NRBC Should be reportable parameter

**Existing as:** Throughput > 75 samples per hour.

**Amended to be read as:** Throughput > 70 samples per hour.

**Existing as** Linearity Ranges WBC  $0.5-80.0 * 10^3/\mu\text{L}$

**Amended as:** Linearity Ranges WBC  $0 --80.0 * 10^3/\mu$

**Existing as:** Reticulocyte count should be possible

**Amended to be read as:** Along with Reticulocyte count malaria count should be possible

#### **Item No 4. Operation Table for Urology**

**Point 7 Existing as:** Table should be equipped with a motorized table top slid of approx. 350-400 mm  
or more.

**Amended to be read as:**-Table should be equipped with a motorized table top slid of approx 300- 400mm or more.

**Point 8 Existing as:** All table positions height lateral tilt back trendelenburg reverse trendelenburg and zero leveling longitudinal sliding table base locking and unlocking should be electro hydraulically operated using a touch switches on held hand controller . it should also indicate patient orientation as reverse/normal.

**Amended to be as :** All table positions height lateral tilt back trendelenburg reverse trendelenburg and zero leveling longitudinal sliding table base, beach chair locking and unlocking should be electric/ electro hydraulically operated using a touch switches on held hand controller . it should also indicate patient orientation as reverse /normal.

**Point 12 Existing as :** Should have latest cordless Bluetooth Hand Control for all powered motorized / electro-hydraulic movements. The color screen should be with backlit for endoscopic procedures. Should also have min. two to maximum positions selectable by surgeon for pre determined table eg. Beach Chair

**Amended to be read as:** Should have latest cordless Infra-red/Bluetooth Hand Control for all powered motorized / electro-hydraulic movements. Should also have min. two to maximum positions selectable by surgeon for pre determined table eg. Beach Chair

**Point 15 Existing as:** The table top should be made up of scratch less X ray /C-arm translucent material and should provide full access for C-arm permitting high quality images and should allow easy X ray with cassette holder bracket

**Amended to be read as:** The table top should be made up of scratch-less X-Ray C-Arm translucent material and should provide full access for C-arm permitting high quality images and should allow easy X-ray with cassette holder bracket through entire length of the table.

**Point 18 Existing as:** Should have moulded , antistatic with no seams, polyurethane foam mattress with easy to fix Velcro system to stop slippage. Mattress must be latex free.

**Amended to be read as:** Should have moulded , antistatic with no seams, polyurethane/ Visco-elastic foam mattress with easy to fix Velcro system to stop slippage. Mattress must be latex free.

**Technical Specifications:**  $\pm 5$  % deviation is allowed.

**Point (a) Existing as:** Height adjustment: min 580 -680 mm max 1100-1200mm

**Technical Specifications:**  $\pm 5$  % deviation is allowed.

a. **Amended to be read as :** Height adjustment : min 580 -680 mm max 1000-1200mm

**Point (h) Existing as** Motorized longitudinal slide of 350 -400 mm

**Amended as :** Motorized Longitudinal slide of 300-400mm or more

### **Item No. 5 Electro surgical Unit**

1. Electro surgery unit should automatically adjust the power output. Intelligent microprocessor technology should deliver the required amount of power according to current need.
2. Should have vessel sealing output for vessels upto 7mm for laparoscopic & open surgeries.
3. Should have autostart & autostop facility for bipolar modes.
4. Should have bipolar cut and coagulation facility.
5. System should have universal socket for Monopolar electrode, Bipolar & Neutral electrode.
6. System should have display of parameters; TFT/LCD display with focused view of current active mode.
7. Visual indicator for actual power being delivered to tissues.
8. Voltage and power regulation in a single system for better coagulation.
9. Activation by double paddle foot switch and hand switch.
10. Activation of the bipolar should be by footswitch and automatic Start facility
11. Visual & audible Display/Alarm supported patient plate safety system during activation.
12. Automatic control of output power according to tissue resistance.
13. Facility for ten or more Programmable memory for output settings.
14. System should have maximum wattage for Monopolar cut - 300 watts & monopolar coagulation 01-200w.
15. Should have bipolar cut 01to100w& bipolar coagulation 01 to 120w
16. System should have three modes for Cut – Auto Cut, Dry cut, Blend
17. System should have facility for, Spray Coagulation & Classic coagulation.
18. Should have continuous patient monitoring for neutral electrode.

19. Should have facility to use under water cutting(Monopolar)

20. System should have two footpedal Sockets.

21. Unit should be US FDA approved/ European CE certification.

### **Power Features**

- Maximum Monopolar Cut output – 300 watts
- Maximum Monopolar Coag output – upto 120 watts
- Safety system:- return electrode monitoring/Neutral electrode safety system (continuous patient monitoring)
- Supply Voltage:- 220 v – 240 v

### **Accessories:**

- Trolley with castors of the same make as electrosurgical unit. Local trolley not acceptable.
- Monopolar, bipolar, vesseling, Footswitch two Paddle – 2 no.
- Bipolar Footswitch – 1 no.
- Reusable Hand switching pencils with cable – 5 nos.
- Bipolar Forceps straight & angled – 5 each.
- Reusable Cable for Bipolar Forceps – 5 nos.
- Set of Electrodes (long and short, Ball & Loop) – 5 nos. each (Total - 20)
- Reusable Monopolar cable for connecting to Lap instruments. ( Two )
- Reusable Bipolar cable for connecting to Lap instruments. ( Two )
  
- Laparoscopic desposable vessel sealing hand instruments (34 – 44cms) 5 pieces each  
Maryland Jaw vessel sealer 5mm (34-44cms) eg. 37cms  
Double action Jaw vessel sealer 5mm (34-44cms) eg. 37cms
- Disposable vessel sealing hand instruments for open surgery (18-28cms) eg. 23cms  
Maryland Jaw vessel sealer 5mm (18-28cms) eg. 23cms

Curved Jaw (16.5 seal) scissor type open surgery instrument with separate control for seal & cut.

**Terms & Conditions:**

- Guarantee/Warranty for Five years & CMC/AMC for another Five years after expiry of Guarantee/Warranty
- Rates for consumables should be quoted separately.
- List of installations especially in Government Hospital should be submitted with performance certificate.
- Compliance certificate should be enclosed.
- Specifications should be marked/highlighted in the Technical/Detailed Catalogue as per the compliance.
- Demonstrations should be given if required.
- Should have service centre in Delhi.

**Item No. 6**

**Amended Specifications for Operations Table for GENERAL SURGERIES**

1. **Amended as:** Should **be** a mobile universal electric /electro-hydraulic operating table with 5 section table top. Having specialized accessories for General Surgeries. The table should be hundred percent oil free.
2. Should have st. steel column with integrated table top, all powered motorized movements including Trendelenburg / Anti-Trendelenburg / Lateral Tilt / Back Section / Back Lift for sitting position must happen with electric / electro-hydraulic drives.
3. **Point Deleted**
4. **Should** have removable and interchangeable head and leg sections with an auto-locking mechanism to suit different functions and orientation identifiable by handset
5. The system should be modular and should have mechanically encoded coupling joints.
6. The system should have electrical and functional impact prevention safety with microprocessor and linear and angular position sensors avoid collisions between the motorized sections and the table or the floor.
7. **Amended as:** Table should be equipped with a motorized table top slide of approx. 300-350mm or more
8. All table positions height, lateral tilt, back, trendelburg, reverse trendelenburg and zero leveling, longitudinal sliding, table base locking and unlocking should be electro-hydraulically operated using a touch switches on hand held controller. It should also indicate the patient orientation as reverse / normal.



9. **Amended as:** Should have automatic 0 (Horizontal) position switch on hand held controller.
10. The table should be equipped with both electronic override control panel embedded in the centre of the column body offering all the controls as in the hand held controller. Should also have manual back-up from foot operated system
11. **Amended as:** Table top reconfiguration should be quick and uncomplicated. Should have head rest with gas spring, double articulation up/down -45 deg. to + 45 deg. and pair of split leg with Abduction facility and leg section up/down\* - 90 deg. To + 90deg.
12. **Amended as:** Should have latest Cordless Bluetooth Hand Control for all Powered motorized / electro-hydraulic movements. Should also have min. two to maximum six memory position selectable by surgeon for pre-determined table positions
13. Fully charged 2x sealed gelified-lead 12V batteries should be sufficient for full week operative schedule. The centre column panel/base hand held controller should indicate the charging status and table battery status. Should be operational while batteries being recharged
14. The table should have heavy duty minimum antistatic large swivel castors with central hydraulic locking.
15. **Amended as:** The table top should be made up of scratch-less X-Ray C-Arm translucent material and should provide full access for C-arm permitting high quality images and should allow easy X-ray with cassette holder bracket through the entire length of table.
16. Should be Radiolucent no metallic cross links between the bars. Table top frame, coupling points and standard rails should be resistant to disinfectant agents and constructed with easy-to-clean St. Steel.
17. The base column should have cover of stainless steel and should prevent the ingress of fluid protection by PVC bellows
18. Should have moulded, antistatic with no seams, Polyurethane foam Mattress with easy to fix Velcro/any other system to stop slippage. Mattress must be Latex free.
19. Table electronics should allow table to be connected remotely for diagnostics and maintenance service saving time for productive surgery
20. **Amended as:** Should have safe patient weight load capacity of at least 250kg or more in all position. The stationary patient weight capacity should be 350kg or more. The literature should support both types of weight capacities.
21. The table should have additionally a foot operated controls unit for Trendelenburg / Anti- trendlenburg, tilt and height.

**21. Table SPECIFICATIONS:  $\pm 5\%$  deviation is allowed**

- a. **Amended as:** Height adjustment: min. 580-680 mm, max. 1000-1200 mm. Mattress – 5cm
- b. Side tilt: min, 18-20 degree
- c. Back (seat) section adjustment: -40 degree to + 80 degree
- d. Trendelenburg adjustment : 30-40 degree
- e. **Amended as:** Reverse Trendelenburg adjustment : 25-40 degree
- f. **Amended as:** Max. width : Min. 520-580 mm with rails
- g. Overall length : 200-220 cm
- h. **Amended as:** Motorized Longitudinal slide of 250-300mm or more
- i. Flex / reflex: 220 degree /120 degree
- j. Kidney break /bridge elevation > 4inches
- k. Power input to be 220-240 VAC, 50 Hz fitted with Indian plug

**22. SET of accessories from same source as table:**

- i. Arm positioning support with radiolucent pad and clamps – One pair
- ii. Shoulder supports with Clamps-One pair
- iii. Anesthesia Screen – 1 no.
- iv. Infusion pole – 1 no.
- v. Body strap with locking Clamps – 2nos. (One Large and One Extra large)
- vi. Raised arm Support - One
- vii. Simple Lateral support with rectangular rubber pads-One pair
- viii. Lithotomy Goepel Leg Support with Ball socket joint movement – One pair
- ix. Adjustable instrument st. steel table, bridge shaped with clamp- One
- x. Head Gel Pad ring- 1nos. – adult and pediatric each.
- xi. Set of Visco / Gel 3D pads for supporting: Chest flat Roll, Sacral pad, heels pads (Pair) – each.

**22. Terms and conditions**

**1. Point Deleted**

2. In case the table is imported the accessories must also be imported with the table and must not be locally sourced.
3. **Amended as:** The quoted equipment should be having US-FDA approval/European CE certification.
4. Original catalogue and literature to be enclosed.
5. The vendor should have a good service and application back up along with instruments to provide an effective trouble shooting and support. (response time < 24 hours)

6. All technical bids comparative statement to the tender specifications must be enclosed along with reference no., paragraph no. from original catalogue of the equipment.
7. **New point added:** Demonstration should be provided if ask for.

**ITEM No. 7**

**Amended SPECIFICATION OF SURGERIES INSTRUMENTS (ONE SET)**

**Total Requirements – Six Sets**

| <b>S.No</b> | <b>Name of instruments</b>         | <b>Quantity</b> |
|-------------|------------------------------------|-----------------|
| <b>A</b>    | <b>Retractors</b>                  |                 |
| 1.          | Abdominal self retaining retractor | Fifteen         |
| 2.          | Kelly's retractor                  | Twenty Five     |
| 3.          | Lengenbeck retractor (all sizes)   | Forty Five      |
| 4.          | Czerney's retractor                | Twenty six      |
| 5.          | Dever's retractor (all sizes)      | Thirty five     |
| 6.          | Doyen's retractor                  | Twenty six      |
| 7.          | Vein retractor                     | Twenty          |
| 8.          | Malliable retractor                | Twenty six      |
| 9.          | Lip retractor                      | Six             |
| 10.         | Lung retractor                     | Eighteen        |
| 11.         | Mastoid retractor                  | Six             |
| 12.         | Thyroid retractor                  | Five            |
| 13.         | Cats paw retractor                 | Six             |
| 14.         | Chest retractor blade & fixator    | Ten             |
| 15.         | Rib approximator with screw        | Ten             |
| 16.         | Rib respatony Rt. & Lt.            | Ten sets        |
| 17.         | Rasper                             | Six             |
| 18.         | Pelvis retractor                   | 2 Sets          |
| 19.         | Rigid laminectomy retractor        | Four            |
| 20.         | 'S' shape retractor                | Four            |
| 21.         | Bladder neck retractor             | Five pices      |
| 22.         | Eyelid retractor                   | Twenty four     |
| 23.         | Skin hook gillies + blunt          | Ten             |
| <b>B</b>    | <b>Bone related instruments</b>    |                 |
| 24.         | Bone cutter                        | Sixteen         |
| 25.         | Rib cutter                         | Four            |
| 26.         | Bone holder                        | Sixteen         |
| 27.         | Bone nibbler                       | Thirty          |
| 28.         | Bone filer                         | Sixteen         |
| 29.         | Bone curette                       | Thirty          |

|          |   |                                       |
|----------|---|---------------------------------------|
| 30.      | Mallet  | Six                                   |
| 31.      | Bone chisel (different sizes)   | Six                                   |
| 32.      | Periosten elevator  | Fourteen                              |
| 33.      | Giglie's saw (amputation)   | Four                                  |
| 34.      | Humbey's knife  | Sixteen                               |
| <b>C</b> | <b>Forceps</b>  |                                       |
| 35.      | Long dissecting forceps Tooth   | Twenty                                |
| 36.      | Long dissecting forceps non-toothed   | Twenty                                |
| 37.      | Russain forceps (Russian)   | Twenty                                |
| 38.      | Addison forceps 8" tooth  | Twenty                                |
| 39.      | Addison forceps 8" non-tooth  | Twenty                                |
| 40.      | Addison forceps 6" (tooth + non-toothed)                                    | six                                   |
| 41.      | Martin forceps  | Twenty four                           |
| 42.      | Allis forceps - Long<br>- Medium  | Seventy two<br>Ninety two             |
| 43.      | Peripheral artery forceps   | Twenty four                           |
| 44.      | Artery forceps - straight<br>- Medium 6" (Curved)<br>- Mosquito 4" (Curved) | One hundred<br>twenty Eighty<br>Sixty |
| 45.      | Right angle forceps - Long<br>- Medium                                      | Twelve<br>Twelve                      |
| 46.      | Roberts artery forceps  | Fifty eight                           |
| 47.      | Babcock's forceps   | Forty eight                           |
| 48.      | Kochers artery forceps  | Forty eight                           |
| 49.      | Ovem forceps 10"  | Ten                                   |
| 50.      | Lung holding forceps  | Twenty four                           |
| 51.      | Chittle forceps 30cm  | Ten                                   |
| 52.      | Chittle forceps container metal (jar)                                       | Ten                                   |
| 53.      | Intestinal clamps - straight<br>- curved                                    | Thirty four<br>Thirty four            |
| 54.      | Sponge holding forceps  | Forty eight                           |
| 55.      | Towel clips   | One hundred<br>twenty                 |
| <b>D</b> | <b>Scissors</b>   |                                       |
| 56.      | Tissue cutting scissors - Long 8"<br>- small 7"                             | Eighteen<br>Eighteen                  |
| 57.      | Mayo scissors - Long<br>- Small   | Twelve + Ten<br>Twelve + Ten          |
| 58.      | Poll's scissors 220mm 45 degree angle                                       | Ten                                   |
| 59.      | B.P Handle - No. 3  | Thirty four                           |

|          |   |   |
|----------|---|---|
|          | - No. 4<br>- No. 11                                   | Thirty four<br>Ten                        |
| <b>E</b> | <b>Needle holder</b>                                  |   |
| 60.      | Needle holder - long 12"<br>- Middle 8"<br>- Small 6" | Fourty four<br>Twenty four<br>Twenty four |
| 61.      | Rider Needle holders - Long 12"<br>- Long 8"          | Twenty<br>Twenty                          |
| <b>F</b> | <b>Rectal</b>   |   |
| 62.      | Proctoscope   | Sixteen                                   |
| 63.      | P.P.E sizer (anal dilator) all sizes                  | Six                                       |
| 64.      | Maleable fistula probe                                | Ten                                       |
| <b>G</b> | <b>Renal /Prile instruments</b>                       |   |
| 65.      | Bile duct dilator set                                 | Six                                       |
| 66.      | Kidney clamps 12"                                     | Six                                       |
| 67.      | Kidney stone forceps                                  | Five sets (each of five pieces)           |
| 68.      | Suction tip small                                     | Ten                                       |
| 69.      | Punch biopsy  | Six                                       |
| <b>H</b> | <b>Vascular</b>                                       |   |
| 70.      | Bull dog (all sizes – 38,48,56mm)                     | Forty each sizes                          |
| 71.      | Pedical clamp   | sixty                                     |
| 72.      | Stensky clamp - Straight<br>- Angle<br>- Curved       | Twenty<br>Twenty<br>Twenty                |
| 73.      | Vena cava clamp (debakey) 125, 155, 165, 260mm        | Ten each                                  |
| <b>I</b> | <b>Other</b>  |   |
| 74.      | Cervical dilator sets                                 | Four                                      |
| 75.      | Vein striper set                                      | Twenty                                    |

### **Specifications :-**

1. All US FDA/ European CE certification
2. All hand / fine instruments – tungsten coated mandatory
3. Demonstration of fine instruments should be given
4. Warranty for five years except wear & tear
5. Manufacturing defect instruments should be replaced.

**Item No. 8**  
**SPECIFICATION FOR OPERATING LAPAROSCOPE WITH CO2 INSUFFLATOR, FULL HD CAMERA SYSTEM & ACCESSORIES( 1 set)**

| Item with Specification.   | Qty              |
|--|------------------|
| <p><b>Full High Definition Three Chip Camera Control System with Camera head:</b></p> <ol style="list-style-type: none"> <li>1. Camera control unit with three chip HD camera head having HD CCD chip of same aspect ratio of 16:9 and camera control unit should be able to produce following video output: DVI-D-2Nos, SDI-2Nos, &amp; USB x 2Nos.</li> <li>2. Three Chip Camera head should produce at head itself Pure Digital signal with high definition video(1920*1080 P )<br/>with aspect ratio of CCD chip and video format of 16:9 or 16:10</li> <li>3. Integrated Flexible Scope filter</li> <li>4. Progressive scan technology</li> <li>5. Automatic digital Image Enhancer</li> <li>6. Should have integrated(one piece) inbuilt optical zoom lens between 15-32mm ± 5% zoom range, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus.</li> <li>7. System should have facility to offer various visualization modes for surgery and diagnosis by shifting the color spectrum like <b>BLUE &amp; GREEN</b> light for recognition of the finest tissue Structures and their differentiation.</li> <li>8. Should have Integrated Gain, shutter, Enhancement, white balance with brightness control.</li> <li>9. Should have peripheral control on CCU for automatic switching ON/OFF printer/video recording device.</li> <li>10. Should must have USB output port for direct recording of still &amp; video sequences<br/>On external hard drive of 1TB and 2 Nos. of this external hard drive to be supplied along with camera.</li> <li>11. The camera head should must have integrated(one piece) inbuilt zoom and focus lens/rings to make it fully soakable for sterilization/disinfection.</li> </ol> | <p><b>01</b></p> |

|   |           |
|---|-----------|
| <p>12. Should be IEC 601-1, CE according to MDD.</p> <p>14. All camera functions to be controlled from camera head buttons and through key board at camera control unit to make it controllable from both sterile and non sterile zone.</p>   |           |
| <p><b>High Resolution HDVideo medical grade Monitor</b></p> <p>26"High Definition Medical grade Monitor, resolution 1920 X 1080 Progressive with DVI-D-2Nos, VGA-1Nos, SDI-1Nos, S-VHS, should also have same video outputs.</p> <p>option for wall mounting and desktop in same unit. Should have same aspect ratio of 16:9 or 16:10 of the endoscopic HD camera system.</p> <p>Fast response time:(5-12ms)</p> <p>Number of colors:16.8 million</p> <p>Luminance: 500cd / m2. Contrast ratio: 800:1</p> <p>Vertical/Horizontal Viewing Angle:178 degree</p> <ul style="list-style-type: none"> <li>- <i>Front sealed, anti-glare overlay guarantees the highest level of defence against liquid ingress.</i></li> </ul> | <b>02</b> |
| <p><b>Xenon Light Source:</b></p> <p>Xenon light source of 300 Watts</p> <p>Should be able to produce color temperature of 6000 K</p> <p>Should have continuous automatic and manual adjustment of light output.</p> <p>Should have standby mode and automatic recovery of last setting of intensity of light.</p> <p>Should have built in antifog pump.</p> <p>Should be able to display lamp life in digital form and should give visual indication for replacement of xenon lamp in case of lamp life of 500 Hrs is over.</p> <p>Should be certified IEC 601-1 and CE according to MDD.</p> <p>Should have provision to connect to communication data BUS for functional control of intensity, standby etc.</p>        | <b>01</b> |

|   |                  |
|---|------------------|
| <p>Should be offered with 10 Nos. spare Xenon 300 Watts Lamp.</p> <p><u>Or alternatively</u></p> <p><b>LED Light source:</b></p> <p>LED light source of 170 Watts or more</p> <p>Should be able to produce day light color temperature</p> <p>Should have continuous automatic and manual adjustment of light output.</p> <p>Should have standby mode and automatic recovery of last setting of intensity of light.</p> <p>Should be able to display lamp life in digital form and should give visual indication for lamp life.</p> <p>LED lamp life of minimum 25,000 Hrs or more.</p> <p>Should be certified IEC 601-1 and CE according to MDD.</p> <p>Should have provision to connect to communication data BUS</p>   |                  |
| <p><b>Fiber Optic Light Cable:</b></p> <p>Fiber Optic light cable of actual bundle size(inner core of fiber cable): 4.5-4.8mm, length : 250-300cm.</p>  | <p><b>04</b></p> |
| <p><b>CO2 Electronic Insufflator up to 20L/M flow rate or more:</b></p> <p>Electronic CO2 insufflators with pin index connection</p> <p>Should have an adjustable flow rate of 0 to 20 liter per minute or above and a pressure range adjustable between 0-30 mm Hg.</p> <p>Preset and actual value for Pressure and flow should be displayed together on the front panel in digital display.</p> <p>Constant monitoring of intra-abdominal pressure; any overpressure is released immediately with back flow with acoustic alarm.</p> <p>Unit should have in-built heater to warm up and preheat the CO2 gas.</p> <p>Should be able to select either central supply (4.5Kg/cm<sup>2</sup>) input pressure from central supply as well as direct connection to high pressure CO2 cylinder and should indicate the right inlet pressure of CO2 gas supply by bar graph on front panel of</p> | <p><b>01</b></p> |



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| <p>machine.</p> <p>Unit should produce immediately acoustic alarm in case of sudden blockage in the gas outlet tube or wrongly placed Veress Needle.</p> <p>Provided with Silicon autoclave tubing with luer attachment.<br/>Should have internal heater to initially heat the CO2 gas to a level to make it from liquid to gas.</p> <p>Instrument should work on a universal power supply of 100-240 V, with a frequency of 50 Hz single phase.<br/>Electrical Safety certification – IEC-601-1 and CE acc to MDD</p> <p>Should have data communication port for remote control.</p> <p><b><u>Technical Specifications:</u></b></p> <ul style="list-style-type: none"> <li>• Gas flow: 0-20 l/min.</li> <li>• Pressure: 0-30 mmHg (4000Pa).</li> <li>• High flow mode (0 to 50 l/min.)</li> <li>• Sensitive mode pressure 15 mmhg &amp; flow 15 l/min for sensitive application</li> <li>• Electronic control and colour touch screen.</li> <li>• Following data are displayed on touch screen: <ul style="list-style-type: none"> <li>- Insufflation mode. <ul style="list-style-type: none"> <li>- Set value pressure (0-30 mmHg).</li> <li>- Current patient pressure.</li> <li>- Set value gas flow (0-50 l/min).</li> <li>- Current gas flow.</li> <li>- Gas consumption (0-999 l).</li> <li>- Status of gas heating.</li> </ul> </li> </ul> </li> <li>• Power supply: 100-240 VAC, 50/60 Hz.</li> <li>• Certified to: IEC 60601-1, CE label acc. to MDD, medical product Class IIb.</li> <li>• Type of protection against electrical shocks: Protection Class 1.</li> <li>• Degree of protection against electric shocks: Applied part type CF.</li> </ul> |                  |
| <p><b>Telescope 0 Degree, 10mm:</b></p> <p>Straight forward telescope,0 degree enlarged view, size: 10 MM</p> <p>rod lenses system ,Length:30- 31 cms, Autoclavable, Fiber optic light transmission incorporated</p>  | <p><b>02</b></p> |

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| <p><b>Telescope 30 degree, 10mm:</b></p> <p>Forward Oblique telescope,30 degree enlarged view, size: 10 MM</p> <p>rod lenses system ,Length:30- 31 cms, Autoclavable, Fiber optic light transmission incorporated</p>   | <p><b>02</b></p> |
| <p><b>Telescope 0 Degree, 5mm:</b></p> <p>Straight Forward Telescope, 0 degree enlarged view, size: 5.0mm</p> <p>rod lenses system ,Length:29-30 cms, Auto clavable, Fiber Optic Light Transmission Incorporated.</p>   | <p><b>02</b></p> |
| <p><b>Telescope 30 Degree, 5mm:</b></p> <p>Forward Oblique Telescope,30 degree enlarged view, size: 5.0mm</p> <p>rod lenses system ,Length:29-30 cms, Auto clavable, Fiber Optic Light Transmission Incorporated.</p>   | <p><b>02</b></p> |
| <p><b>Trocar &amp; Cannula:</b></p> <p>Cannula size: <b>5.5-6mm diameter</b>; should have multifunctional valve and automatic valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. It should have stopcock for CO2 insufflation.</p> <p>Trocar should have <b>Pyramidal</b> tip with pin holes near the tip for safety outlet of CO2 gas. The working length of the cannula should be 100-110 mm.</p> | <p><b>06</b></p> |
| <p><b>Trocar &amp; Cannula:</b></p> <p>Cannula size: <b>11-12 mm diameter</b>; should have multifunctional valve and automatic valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. It should have stopcock for CO2 insufflation.</p> <p>Trocar should have <b>Pyramidal</b> tip with pin holes near the tip for safety outlet of CO2 gas.The working length of the canula should be 100-110 mm.</p>  | <p><b>06</b></p> |
| <p><b>Trocar under optical vision:</b></p> <p>Cannula with endo tip with smooth thread on cannula size: 11-12mm, cannula rotatable with multifunction valve, working length : 11cm. The endo tip cannula should compatible with 10mm telescope for under vision entry into peritoneum. No need for any trocar.</p>  | <p><b>02</b></p> |

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| <b>Reusable Trocar:-</b> 13-13.5 mm-Multifunctional valve, insufflation stopcock and threaded sleeves, <b>Pyramidal</b> tip, length (10.5cm/11) Flapper valve  | <b>02</b> |
| <b>Veress Needle:</b><br>Veress needle of working length 10-18 cm with luer lock. Spring loaded blunt inner cannula, diameter 2.1mm,   | <b>5</b>  |
| <b>Unipolar curved Kelly/marryland dissecting and Grasping Forcep:</b><br>Kelly curved dissecting and grasping forceps insulated, atraumatic, working length 35-36 cm, size: 5mm,dismountable into handle, insert and working tube. Handle without ratchet.                          | <b>5</b>  |
| <b>Curved Insert Forcep Unipolar:</b><br>Insert forcep Kelly type curved atraumatic jaw compatible with main Kelley curved dissecting forceps.   | <b>05</b> |
| <b>Grasping Forcep Fenestrated:</b><br>Atraumatic serration, fenestrated, grasping forcep with unipolar connection, insulated sheath, handle without ratchet. Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm.    | <b>04</b> |
| <b>Grasping Forcep Fenestrated curved:</b><br>Atraumatic, fenestrated, curved grasping forcep with unipolar connection, insulated sheath, handle without ratchet. Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm | <b>04</b> |
| <b>Grasping Forcep Atraumatic:</b><br>Atraumatic, fine serration grasping forcep with unipolar connection, insulated sheath, handle without ratchet. Should be dismantable into three parts namely, outer tube, handle and inserts. Length between 35-36cm, size: 5.0mm              | <b>02</b> |
| <b>Bowel Grasping Forcep:</b><br>Bowel Grasper fenestrated, size: 5.0mm, length 35-36cm, handle with ratchet, insulated shaft.Dismountable into three parts.   | <b>02</b> |
| <b>Babcock Grasping Forcep:</b><br>Babcock Grasper atraumatic, size: 5.0mm, length 35-36cm, handle with ratchet,   | <b>02</b> |

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| insulated shaft.Dismountable into three parts  |           |
| <b>Allis Grasper:</b><br>Allis Grasper, size: 5.0mm, length 35-36cm, handle with ratchet, insulated shaft.Dismountable into three parts.   | <b>02</b> |
| <b>Unipolar Tooth Grasping Gorcep:</b><br>Tiger Jaw 2x4 teeth insulated. Dismantable into different parts, insert, handle and working tube, Working length of 35-36 cm, size: 5mm. Handle with ratchet.  | <b>02</b> |
| <b>Heavy Duty BIPOLAR Grasping forceps with ceramic insulation, with broad jaw straight, rotatable and dismountable.</b>   | <b>02</b> |
| <b>Bipolar HF Cable:</b><br>Bipolar HF cable compatible to connect with main bipolar forceps.  | <b>10</b> |
| <b>Aspiration/Injection Needle, LUER-lock, diameter 1.2 mm, size 5 mm, length 36 cm.</b>   | <b>10</b> |
| <b>Hassan Trocar:</b> Trocar, size 11 mm, with blunt tip, Cannula without valve, with insufflation stopcock, with 2 flanges for fixation of sutures length 13 cm, Automatic valve, Sliding Cone  | <b>02</b> |
| <b>Scissor curved Unipolar:</b><br>METZENBAUM curved scissor, length of blade 12mm, connection for unipolar HF cable, dismountable into insert, tube and handle. Working length 35-36 cm, size: 5mm, handle without ratchet.                               | <b>04</b> |
| <b>Insert curved scissor:</b><br>Scissor curved inset to fit with main curved scissor.   | <b>02</b> |
| <b>Hook Scissor: Hook scissor 5mm, single action jaw</b>   | <b>06</b> |
| <b>Ovum/Oviduct Forcep size 5mm, length 33-36cm:</b>   | <b>02</b> |
| <b>Mixture forceps/Dissecting and Grasping Forceps, rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, right angled, double action jaws, plastic handle, without ratchet, with larger contact area, Outer Tube, insulated</b> | <b>06</b> |
| <b>Biopsy Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER lock adaptor for cleaning, single action jaws,</b>   | <b>06</b> |

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| <b>size 5 mm, length 36 cm, Plastic Handle, without ratchet, with larger contact area, Outer Tube, insulated</b>  |  |
| <b>Reducer from 11mm to 6mm</b>   | <b>5</b>                               |
| <b>Reducer sleeve from 11mm to 6mm</b>  | <b>5</b>                               |
| <b>Right Angle Forcep 90Degree long tip: Dissecting and Grasping Forceps, rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, right angled, double action jaws, plastic handle, without ratchet, with larger contact area, Outer Tube, insulated</b>  | <b>02</b>                              |
| <b>Right Angle Forcep 90Degree short tip: Dissecting and Grasping Forceps, rotating, with connector pin for unipolar coagulation, size 5 mm, length 36 cm, right angled, double action jaws, plastic handle, without ratchet, with larger contact area, Outer Tube, insulated</b> | <b>02</b>                              |
| <b>L-shaped hook dissector with unipolar HF connection.</b>   | <b>10</b>                              |
| <b>Spatula/Blunt dissector with unipolar HF connection</b>  | <b>10</b>                              |
| <b>Unipolar HF Cable:</b><br>Unipolar HF cable suitable to connect with forcep and electrosurgical unit.  | <b>10</b>                              |
| <b>Claw Forcep:</b><br>10 mm claw forcep 2x3 teeth short with ratchet. With suitable length between 33-36cm, dismountable into handle, insert & outer tube.   | <b>04</b>                              |
| <b>Spoon Forcep:</b><br>Retrieval of foreign body/stones forcep, size 10mm without ratchet. With suitable length between 33-36cm, dismountable into handle, insert & outer tube.  | <b>02</b>                              |
| <b>Clip Applicator: Size - Medium &amp; Medium Large</b><br>Clip applicator rotating size: 10mm, length 30-36cm, for Titanium clips with ratchet to lock the jaw holding the clip.  | <b>02Each</b>                          |
| <b>Titanium Clips:</b><br>Titanium clips Medium & medium large, 500 clips each size for use with clip applicators.  | <b>500<br/>Clips<br/>each<br/>size</b> |

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| <p><b>Needle Holder:</b></p> <p>Macro needle holder with tungsten carbide insert, ergonomic pistol handle, with disengageable ratchet, jaw curved to left, size: 5mm, length : 32-33cm for use with suture material size: 0/0 to 7/0.</p>   | <b>02</b>     |
| <p><b>Two Way Suction irrigation cannula, size:</b></p> <p>5mm&amp;10mm each with special handle with trumpet control for irrigation and suction with silicon tubing.</p>   | <b>02Sets</b> |
| <p><b>Fan Retractor 5mm &amp; 10mm: Dismantling Fan Retractor, distendable, length 36 cm</b></p>  | <b>02Each</b> |
| <p><b>Puncture Needle, size: 5mm, length 36cm</b></p>   | <b>02</b>     |
| <p><b>Cholangiography Catheter Guide, for catheters</b></p> <p>with max. size 2.4 mm, with distal angulation 90°, downward</p>  | <b>02</b>     |
| <p><b>OLSEN Cholangiography Fixation Clamp,</b></p> <p>with channel catheter 6 Fr., length 27 cm</p>  | <b>02</b>     |
| <p><b>Two-Way Stopcock, with 2 valves, for contrast medium and saline solution</b></p>  | <b>10</b>     |
| <p><b>Flexible Video Choledochoscope: should have sheath size less than 3.0mm; working channel size 1.2mm or more, working length of 50cm or more, tip deflection of both side minimum 270 degree, direction of view 0 degree. It should be compatible to connect with camera system and proper adaptor is to be provided.</b></p>  | <b>01</b>     |
| <p><b>Grasping Forceps, flexible, double action jaws, 3 Fr./1 mm, length 75 cm</b></p>  | <b>05</b>     |
| <p><b>Applicator and Guide Tube, for use with trocars size 6 mm</b></p>   | <b>05</b>     |
| <p><b>SUCTION &amp; IRRIGATION DEVICE:</b></p> <p>Compact suction and irrigation unit having Irrigation pressure not less than 400mmHg &amp; Suction pressure not less than (-0.75mmHg). The irrigation and suction flow should not be less than 2.5L/M. The unit should be supplied with 1.5 Litre glass bottle with bottle cap and stand; The unit should be supplied with 1.0 Litre irrigation bottle sterilizable in autoclave with bottle cap attachment to connect tubing. The unit should be supplied with reusable irrigation and suction silicon tubing set 2 Nos. each.</p> | <b>01</b>     |

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| Should be IEC 601-1, CE according to MDD.  |                |
| <b>HP Hose:</b><br>Suitable high pressure hose pin index to connect the gas to insufflator, length : 1.0 meter.  | <b>05</b>      |
| <b>CO2 Cylinder:</b><br>5 Kg. Carbon Dioxide bottle with pin index connection with wrench  | <b>10</b>      |
| <b>Lap Instrument Dish/Disinfection/Sterilization tray with sieve, tray to lift Size: 27"X7"X5" (LXBXD)</b>  | <b>10</b>      |
| <b>Suitable Autoclavable plastic tray</b> double tray for sterilization and storage for hand instruments of minimum 20 hand instruments preferably from same manufacturer of endoscopes(OEM).  | <b>05</b>      |
| <b>Cleaning Accessories:</b> Cleaning accessories to be supplied like silicon oil of 50ml, Lens Cleaner, Cleaning brush for cannula & instruments  | <b>10 sets</b> |
| <b>Video Trolley:</b><br>Video trolley to be supplied for mounting equipments having minimum four self in addition to with one drawer, with antistatic wheel casters, front lockable, high grade of electrical insulation and earth protection. 5 Ampere socket, 10Nos, inbuilt with trolley to connect all electronic devices. CO2 bottle stand should be integrated with trolley. Potential equalization connection to be provided at least 10 points. Powder coated good quality rust free and should be able to take load minimum up to 70 Kg. | <b>01</b>      |
| Suitable <b>UPS</b> of 2.0 KVA with One 30 minutes backup time with SMF Batteries. Should be able to work on wide input range between 160-270 VAC at 23 frequency between 50Hz ± 2Hz, Should use PWM technology with power conversion with single transformer arrangements with an output of 220VAC ± 5%, protection of overload, short circuit and low battery. Should have indication on front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit. ISI/CE approved good quality Indian make.    | <b>01</b>      |
|  |                |
| <b>Guarantee: Guarantee for 5 years from date of installation</b>  |                |
| <b>CMC: The CMC should be offered for five years( on yearly basis)after Guarantee period of five years. Rates of CMC should be quoted separately.</b>  |                |

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| <b>All Electronic Devices/Product should have IEC safety standards where ever listed and certificate to be enclosed with tender.</b>  |  |
| <b>All items should be European CE &amp; USFDA certified, except UPS, , CO2 Cylinder, Cleaning accessories &amp; Tray for disinfection/sterilization.</b>   |  |
| <b>The core Operating Laparoscope like Telescopes, hand instruments( Trocar Cannula, all Dissecting &amp; Grasping forceps , scissors, electrodes, unipolar and bipolar forceps, Clip applicator, needle holder, HF instruments etc), Endoscopic camera, Light source, Video Monitor, CO2 Insufflator, Suction Irrigation unit, etc must be from same manufacturer for system compatibility for optimal performance of system as whole.</b> |  |
| <b>Installation should be done free of cost by supplier</b>   |  |
| <b>Demonstration of complete equipment is must for final approval by</b>  |  |
| <b>The company should mention the make and model name/number of offered item along with their description of the quoted equipments and submit the technical brochure of quoted model in the technical bid along with compliance sheet as per technical specification.</b>   |  |
| <b>Training: Firm/Bidder should provide training on operating features of equipments and cleaning and maintenance to paramedics and nurses for 5 consecutive days after installation and once in each quarter of year during preventive maintenance.</b>  |  |
| <b>Firm/bidder should mention all the pre-installation requirements in technical bid</b>  |  |
| <b>All equipment should be from the same manufacturer.</b>  |  |
| <b>The principle company should have a office/ service centre in Delhi/NCR</b>  |  |



**Item No. 9**  
**Cutting Instrument**

| <b>S.No</b> | <b>Name of instruments</b>                 | <b>Quantity</b> |
|-------------|--|-----------------|
| 1.          | Allis forceps 6"                           | Twenty          |
| 2.          | Curved mosquito forceps 4"                 | Twenty          |
| 3.          | Medium curved artery forceps 6"            | Twenty          |
| 4.          | Medium straight artery forceps 6"          | Twent           |
| 5.          | B.P Handle - No. 3, No. 4, No. 11          | Ten             |
| 6.          | Tissue cutting scissors 7"/8"              | Ten             |
| 7.          | Suture cutting scissors 7"/8"              | Ten             |
| 8.          | Potts scissors 220mm 45degree angle        | Ten             |
| 9.          | Needle holder long 12"                     | Twent           |
| 10.         | Rider Needle holders long 12"              | Twent           |
| 11.         | Rider Needle holders long 8"               | Twent           |
| 12.         | Mallable fistula probe                     | Ten             |
| 13.         | Adsons tissue forceps 8" tooth             | Ten             |
| 14.         | Adsons tissue forceps 8" Non tooth         | Ten             |
| 15.         | Adsons tissue forceps 6" tooth + non tooth | S               |
| 16.         | Towel clip long                            | Twent           |
| 17.         | Ovem forceps 10"                           | Ten             |
| 18.         | Moniyan long artery forceps                | Twent           |
| 19.         | Chittle forceps 30cm                       | Ten             |
| 20.         | Chittle forceps container metal (jar)      | Ten             |

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|-----|---------------------------------------|----------------------------|
| 21. | Robert artery forceps                 | Ten                        |
| 22. | Intestinal clamps (straight + curved) | Ten                        |
| 23. | Bile duct dilator set                 | S                          |
| 24. | Kidney clamp 12"                      | Five                       |
| 25. | Kidney stone forceps                  | Five sets<br>(each of five |
| 26. | Skin hook gillies + blunt             | Ten                        |
| 27. | Sponge holder                         | Five                       |
| 28. | Proctoscope                           | Ten                        |
| 29. | Suction tip small                     | Ten                        |
| 30. | Humby's / Watson knife handle         | Ten                        |
| 31. | Thyroid retractor                     | Five                       |
| 32. | Deves retractor set                   | Five sets                  |
| 33. | Laghenberg retractor                  | Five                       |
| 34. | Abdominal self retaining retractor    | Five                       |
| 35. | Kilner's retractor                    | Five                       |
| 36. | Moris retractor                       | Five                       |
| 37. | Zerney's retractor                    | Six                        |
| 38. | Lip retractor                         | Six                        |
| 39. | Lung retractor                        | Six                        |
| 40. | Doyen's retractor                     | Six                        |
| 41. | Mastoid retractor                     | Six                        |
| 42. | Cats paw retractor                    | Six                        |

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| 43. | Malliable abdominal retractor                               | Six           |
| 44. | Pelvis retractor  | Two sets      |
| 45. | Rigid laminectomy retractor                                 | Four          |
| 46. | 'S' shape retractor   | Six           |
| 47. | Rib approximator (adult size)                               | Four          |
| 48. | Rib retractor   | Four          |
| 49. | Rib cutter  | Four          |
| 50. | Rib respiratories 240mm (left & right)                      | Four sets     |
| 51. | Periostium elevator   | Four          |
| 52. | Bone chessel diff sizes                                     | Six           |
| 53. | Bone cutter   | Six           |
| 54. | Mallet  | Six           |
| 55. | Bone curette  | Six           |
| 56. | Bone filer  | Six           |
| 57. | Bone nibbler  | Six           |
| 58. | Bone holding forceps  | Six sets      |
| 59. | Bladder neck retractor                                      | Four sets     |
| 60. | Amputation saw (gigley's)                                   | Four          |
| 61. | Cervical dilator set  | Four          |
| 62. | Vena cava clamp (debakey) 125, 155, 165, 260mm              | Ten each      |
| 63. | Satinsky vascular clamp (straight, angle & curved)          | Ten each      |
| 64. | Right angled artery forceps 6", 7"/8"/12" fine tip (martin) | Ten each size |
| 65. | Bull dog clamps 38, 48, 56mm                                | Twenty each   |

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|-----|------------------------|-------------|
| 66. | Bab cock forceps       | Ten         |
| 67. | Mouth gag              | Ten         |
| 68. | Basin stand            | Two         |
| 69. | Basin stainless steel  | Two         |
| 70. | Dressing drums (steel) | Four        |
| 71. | Dressing Jar           | Four        |
| 72. | Dressing tray steel    | Twenty      |
| 73. | Kidney tray            | Twenty      |
| 74. | Vein striper set       | Twenty sets |

#### **ITEM 10**

#### **SPECIFICATION FOR PORTABLE VENTILATOR**

1. Should be microprocessor based Portable Ventilator for use in Emergency Transport/ Intra Hospital Transport purpose. It can be used from infant to adult patients.
2. **Amended as** :It should be less than 7 Kgs. It should have in built source of compressor and work with high pressure hospital pipe line/cylinders for variable Fio2.
3. Preferably have Automatic pre-selection of Ventilator parameters with the setting of the Ideal Body Weight (IBW) of the patient (infants and adults)
4. It should have volume control and pressure control ventilation with following modes. VCV and AVCV, PCV and APCV, SIMV-(volume) with PS, SIMV-(pressure) with PS, PSV, CPAP, Bipap/Bi -phasic ventilation, PRVC, , Non-invasive ventilation in VCV,PCV,SIMV,CPAP,BIPAP
5. It should have the following setting parameters:

|              |                        |
|--------------|------------------------|
| Tidal volume | 20 to 2000 mL ,        |
| Frequency    | 1 to 80 Bpm            |
| PEEP         | up to 20 cmH2O or more |
| FiO2         | 21 to 100%             |

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| I: E ratio                          | 10 to 50% of total time           |
| Inspiratory time                    | 0.25 to 5 s                       |
| Inspiratory flow trigger            | OFF, 0.5 to 10 l/min              |
| Inspiratory pressure                | 5 to 60 cmH <sub>2</sub> O        |
| <b>Amended as</b> Rise time         | Adjustable                        |
| Peak Flow                           | 2 to 150 l/min in volumetric mode |
|                                     | 230 l/min in spontaneous mode     |
| <b>Amended as</b> Inspiratory pause | minimum 6 sec                     |
| <b>Amended as</b> Expiratory pause  | minimum 6 sec.                    |

6. **It should have the following audio and visual alarms :**  
 High pressure, Tidal Volume (low/high), Minute volume (low/high), Frequency (low/high),  
 FiO<sub>2</sub> (low/ high) disconnection, power supply failure, battery.
7. **It should have user configurable Apnea /backup ventilator settings**
8. **It should have the following measured parameters:** Minute volume (insp & Exp),  
 Tidal Volume (Insp & Exp) Frequency (f)  
 Peak airway pressure  
 Positive expiratory pressure (PEEP) Mean airways pressure  
 Plateau Pressure Leak index Ti/Ttot  
 I: E ratio  
 FiO<sub>2</sub>  
 etCO<sub>2</sub> (optional)
9. It should have built in battery backup at least for 4 hours or more.
10. **Amended as :**It should have built in colour touch screen not lesser than 10 inches
11. It should have graphics-pressure, flow and volume curves and CO<sub>2</sub> Curve (Optional) with adjustable scales and Loops (optional).
12. It should have trending facility for vital parameters
13. **Amended as :**It should be European CE and USFDA.
14. It should have drop test certificate.
15. **Scope of supply per ventilator.**
  1. Patient tubing - 1 No. each(Adult & paediatric)
  2. Trolley - 1 from OEM (original equip manufacture)

3. etCo2 probes - 1 No (optional)
  4. Mask - 1 Set (Infant, Paediatric, Adult)
  5. Arm set - 1 No.
  6. Connection for high pressure Oxygen pipe line/Cylinders.
- 
- 16 Warranty 5 years with spares and next 5 years CMC.
  - 17 Rates to be quoted for spares, consumables which are not covered under the warranty, CMC.
  - 18 Circuits: Infant, Pediatric, Adult :(Silicon material) – 2 each
  - 19 Test lung: Infant, Pediatric, Adult
  - 20 Company should do the demo as and when required.

**ITEM NO. 11**  
**SPECIFICATION OF TRANSPORT VENTILATOR**

1. Ventilator should be suitable for emergency and critical care transport for use by professionals in prehospital and hospital settings.
2. Suitable for adults, children and infants operations.
3. **Amended as** : Should be wall mounted, light weight, robust and user friendly.
4. Ventilator should have capable to showing wave forms
5. Ventilator should have large color TFT display of minimum 6" size, with the option to change into night mode.
6. **Amended as** : Modes of ventilation: Bi-level, CPAP + ASB, PCV,IPPV,S-IPPV, SIMV, PRVC/ Duel Mode Apnea Mode, NIV And ETCO2  
Pre-oxygenation – 5 l/min to 25 l/min  
Should have option of up gradation.
7. NIV should able to operate in all modes
8. Should have facility of leak compensation
9. Should have the measurements of P-Peak, P plat and P mean
10. Should have apnea- backup function with possible modes Bi-level or SIMV
11. **Point Deleted:** Should have integrated emergency mode with preset levels for infants, children and adults in case of emergency
12. High inflation pressure alarm
13. Tidal Volume : 50 to 2000ml  
Rate : 0 to 60 min<sup>-1</sup>  
Pinsp : 3 to 60 mbar  
Pressure support (ASB) : 0 to 30 mbar  
PEEP : 0 to 30 mbar

- I:E ratio : 4:1 to 1:4
- Maximum Flow : 150l/min
- Trigger (Flow) : 1 to 15 l/min
- 14. Large clearly visible bright red alarm light
- 15. Alarm volumes should be regulated separately for adjusting limits as per requirements
- 16. Ventilator should have battery backup of minimum 4 hrs and should supply one additional battery.
- 17. Charging time of the battery should be 4hrs for 0- 100%
- 18. **Amended as** : FIO2: 21 to 100%
- 19. Equipment should be complete with carry bag, patient circuit, pressure regulator for the oxygen cylinder and relief valve. ( Transport Ventilator Kit)
- 20. The above kit should be supplied with all required brackets/ mounts to ensure mounting in ambulance and on stretcher rails without hampering patient care in an acute scenario. Should be from the same manufacturer which should be complying with crash proof test EN-1789 standard.
- 21. Power supply :
  - Device power supply : 12 – 15 volt DC
  - Power for external mains unit : 100-240 V AC, 50/60 Hz
- 22. **Amended as**: Facility of data transfer
- 23. Should have simulation mode / demo for trainings and demonstration purposes
- 24. **Point Deleted**: Ventilator should have CE, ISO & EN 6061 certification
- 25. Product surgery 93/42/ EEC : class IIb protocol certificate
- 26. Degree of protection against water IPX4 protocol certificate
- 27. **Amended as**: Should be European CE and US-FDA
- 28. Should have air worthy certification
- 29. **Point Added**: Should have drop test worthy certification.

**Scope of supply per ventilator.**

- 7. Patient tubing - 1 No. each(Adult & paediatric)
- 8. Trolley - 1 from OEM (original equip manufacture)
- 9. etCo2 probes - 1 No (optional)
- 10. Mask - 1 Set (Infant, Paediatric, Adult)
- 11. Arm set - 1 No.
- 12. Connection for high pressure Oxygen pipe line/Cylinders.

**Points Added:-**

- 30 Warranty 5 years with spares and next 5 years CMC.  
 31 Rates to be quoted for spares, consumables which are not covered under the warranty, CMC.  
 32 Circuits: Infant, Pediatric, Adult :(Silicon material) – 2 each  
 33 Test lung: Infant, Pediatric, Adult  
 34 Company should do the demo as and when required.

**ITEM No. 15****CRANIOTOMY SET & NEURO SURGERY HAND INSTRUMENTS LIST**

| S.No. | LAMINECTORMY SET-2 sets to be ordered    | Qty. Per Set |
|-------|--|--------------|
| 1.    | BACKHAUS TOWEL CLAMP 90MM                | 4            |
| 2.    | BACKHAUS TOWER CLAMP 135MM               | 4            |
| 3.    | SCALPEL HANDLE #3 125MM                  | 1            |
| 4.    | SCALPEL HANDLE #4 135MM                  | 1            |
| 5.    | TC MAYO SCISSORS STR 170MM               | 1            |
| 6.    | TC MAYO SCISSORS CVD 170MM               | 1            |
| 7.    | TC METZENBAUM SCISSORS STR 145MM         | 1            |
| 8.    | TC METZENBAUM SCISSORS CVD 145MM         | 1            |
| 9.    | TC METZENBAUM SCISSORS CVD 180MM         | 1            |
| 10.   | TC METZENBAUM SCISSORS DEL CVD 230       | 1            |
| 11.   | SUCTION CANNULA BARRON 1MM               | 1            |
| 12.   | SUCTION CANNULA BARRON 2MM               | 1            |
| 13.   | CUSHING TISSUE FORCEPS 1X2 178MM         | 1            |
| 14.   | WAUGH DEL TISSUE FORCEPS 1X2 200MM       | 1            |
| 15.   | CUSHING TISSUE FORCEPS 1X2 178MM         | 1            |
| 16.   | WAUGH DEL TISSUE FORCEPS 1X2 180MM       | 1            |
| 17.   | FORCEPS BAYO SMOOTH 185MM                | 1            |
| 18.   | ADSON FORCEPS BAY SHAPED 175MM           | 1            |
| 19.   | FORCEPS RAMSEY 175MM                     | 1            |
| 20.   | ADSON ELEVATOR SHARP FLAT 8MM            | 1            |
| 21.   | ADSON RASPATORY CVD. 7MM WI.             | 1            |
| 22.   | ADSON RASPATORY CVD. 7MM WI.             | 1            |
| 23.   | ADSON RASPATORY STR. 7MM WI.             | 1            |
| 24.   | SELF-RETAINING RETR 3X4T. BLUNT 195MM    | 2            |
| 25.   | LANGENBECK RETRACTOR SOLID 40X10MM 230MM | 1            |
| 26.   | LANGENBECK RETRACTOR SOLID 43X13MM 229MM | 1            |
| 27.   | LANGENBECK RETRACTOR 64X20MM 210MM       | 1            |
| 28.   | BECKMANN-ADSON RETR 4X4 SEMI-S 305MM     | 2            |
| 29.   | ADSON BABY RECTRACTOR 3X4 BLUNT 140MM    | 2            |
| 30.   | ADSON RETRACTOR SEMI-SHARP 4X4T.210MM    | 2            |
| 31.   | ADSON DISSECT. FORCEPS W/O T.180MM       | 1            |
| 32.   | LUER-STILLE BONE RONGEUR STR 225 MM      | 1            |



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| 33. | STILLE-RUSKIN BONE RONGEUR 240MM        | 1 |
| 34. | RUSKIN BONE RONGEUR CVD 190MM           | 1 |
| 35. | ECHLIN BONE RONGEUR JAW 3X10MM 230MM    | 1 |
| 36. | LEMKPURT BONE RONGEUR STR 2MM 165MM     | 1 |
| 37. | LUER BONE RONGEUR STR 175MM             | 1 |
| 38. | LUER BONE RONGEUR CVD 175MM             | 1 |
| 39. | BEYER BONE BONGEUR CVD 175MM            | 1 |
| 40. | JANSEN BONE RONGEUR CVD 175MM           | 1 |
| 41. | DAHLGREN SKULL PUNCH W/2 X-HOOKS210MM   | 1 |
| 42. | ECHLIN BONE RONGEURJAW 2X10MM 230MM     | 1 |
| 43. | ECHLIN BONE RONGEURJAW 3X10MM 230MM     | 1 |
| 44. | ECHLIN BONE RONGEURJAW 3X10MM 230MM     | 1 |
| 45. | ZAUFAL-JANSEN BONE RONGEUR CVD 180MM    | 1 |
| 46. | ECHLIN BONE RONGEUR JAW 3X10MM 230MM    | 1 |
| 47. | STILLE BONE RONGEUR 230MM               | 1 |
| 48. | LEKSELL RONG FCPSDBACT CVD 5X16MM 245MM | 1 |
| 49. | FRYKHOLM BONE RONGEUR 240MM             | 1 |
| 50. | STILLE-RUSKIN BONE RONGEUR240MM         | 1 |
| 51. | RUSKIN BONE RONGEUR CVD 190MM           | 1 |
| 52. | LUER BONE RONGEUR STR 175MM             | 1 |
| 53. | LISTON BONE-CUTTING FORCEPS STR 280MM   | 1 |
| 54. | LISTON BONE-CUTTING FORCEPS CVD 280MM   | 1 |
| 55. | LISTON-KEY-HORSLEY BNE-CUTTING FCP254MM | 1 |
| 56. | LISTON BONE-CUTTING FORCEPS STR140MM    | 1 |
| 57. | ADSON RETRACTOR 3X4 SHARP 265MM         | 2 |
| 58. | SELF-RETAINING RETR 3X4T. SHARP 195MM   | 2 |
| 59. | ANDERSON-ADSON RETR 4X4 SHARP 190MM     | 2 |
| 60. | SELF-RETAINING RETR 3X4T. BLUNT 195MM   | 2 |
| 61. | ANDERSON-ADSON RETR 4X4 SHARP 190MM     | 1 |
| 62. | ADSON-BABY RETRACTOR 3X4 BLUNT 140MM    | 2 |
| 63. | ADSON RETRACTOR SEMI-SHARP 4X4T. 210MM  | 2 |
| 64. | JANSEN RETRACTOR 3X3 BLUNT 100MM        | 2 |
| 65. | ALM RETRACTOR 4X4T. SHARP 70MM          | 1 |
| 66. | ALM RETRACTOR 4X4T. SHARP 100MM         | 1 |
| 67. | WEITLANER RECTRACTOR 3X4T. BL. 130MM    | 1 |
| 68. | BECKMANN-ADSON RETR 4X4 SHARP 305MM     | 2 |
| 69. | BECKMANN-ADSON RETR 4X4 SEMI-S 305MM    | 2 |
| 70. | DE'BAKEY FEMUR RETRACTOR F/ADULT 145MM  | 2 |
| 71. | JACKSON-BURROWS RETRACTORBLUNT 180MM    | 1 |
| 72. | GELPI VAGINAL RETRACTOR 135MM           | 1 |
| 73. | GELPI SKIN/VAGINAL RETRACTOR 175MM      | 1 |
| 74. | DE'BAKEY FEMUR RETRACTOR F/ADULT 145MM  | 1 |
| 75. | CLOWARD LAMINA SPREADER 135MM           | 1 |
| 76. | INGE LAMINA RETRACTOR 170MM             | 1 |
| 77. | CLOWARD LAMINA SPREADER 135MM           | 1 |

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| 78.  | CLOWARD LAMINA SPREADER 155MM           | 1 |
| 79.  | INGE LAMINA RETRACTOR 275MM             | 1 |
| 80.  | INGE LAMINA RETRACTOR 170MM             | 1 |
| <b>STANDARD KERRISON PUNCH-1 SET TO BE ORDERED</b>   |   |   |
| 1.   | KERRISON 90DG-UP 2MM 180MM              | 1 |
| 2.   | KERRISON 90DG-DWN 2MM 180MM             | 1 |
| 3.   | KERRISON 90DG-UP 3MM 180MM              | 1 |
| 4.   | KERRISON 90DG-DWN 3MM 180MM             | 1 |
| 5.   | KERRISON 90DG-UP 4MM 180MM              | 1 |
| 6.   | KERRISON 90DG-DWN 4MM 180MM             | 1 |
| <b>KERRISON, IVD AND BONE RONGEUR SET, BLACK CERAMI COATED<br/>NONE REFLECTING DETACHABLE KERRISON PUNCH 1 SET TO BE ORDERED</b> |   |   |
| 1.   | KERRISON BLK COATED 130 UP 180X1MM REG  | 1 |
| 2.   | KERRISON BLK COATED 130 UP 180X2MM REG  | 1 |
| 3.   | KERRISON BLK COATED 130 UP 180X3MM REG  | 1 |
| 4.   | KERRISON BLK COATED 130 UP 180X4MM REG  | 1 |
| 5.   | KERRISON BLK COATED 130 UP 180X5MM REG  | 1 |
| 6.   | KERRISON BLK COATED 130 UP 180X1MM THIN | 1 |
| 7.   | KERRISON BLK COATED 130 UP 180X2MM THIN | 1 |
| 8.   | KERRISON BLK COATED 130 UP 180X3MM THIN | 1 |
| 9.   | KERRISON BLK COATED 130 UP 200X2MM REG  | 1 |
| 10.  | KERRISON BLK COATED 130 UP 200X3MM REG  | 1 |
| <b>CURVED KERRISON PUNCH 1 set to be ordered</b>   |   |   |
| 1.   | KERRISON CVD.UP 200MM 2MM               | 1 |
| 2.   | KERRISON CVD.UP 200MM 3MM               | 1 |
| 3.   | KERRISON CVD.UP 200MM 4MM               | 1 |
| <b>BEYONET KERRISON PUNCH 1 set to be ordered</b>  |   |   |
| 1.   | KERRISON BAY.SHAPED 130DEG UP 240MM 2MM | 1 |
| 2.   | KERRISON BAY.SHAPED 130DEG UP 240MM 3MM | 1 |
| 3.   | KERRISON BAY.SHAPED 130DEG UP 240MM 4MM | 1 |
| <b>DISC FORCEPS 1 set to be ordered</b>  |   |   |
| 1.   | SPURLING RONGEUR STR 4X10MM 180MM       | 1 |
| 2.   | SPURLING RONGCVDUP-BITE 4X10MM 180MM    | 1 |
| 3.   | SPURLING RONGEUR DWN-BITE 4X10MM 180MM  | 1 |
| <b>ANTERIOR CERVICAL SET - 1 set to be ordered</b>   |   |   |
| 1.   | BACKHAUS TOWEL CLAMP 90MM               | 4 |
| 2.   | BACKHAUS TOWEL CLAMP 135MM              | 4 |
| 3.   | SCALPEL HANDLE #3 125MM                 | 1 |

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| 4.  | SCALPEL HANDLE #4 135MM                    | 1 |
| 5.  | TC MAYO SCISSORS STR 140MM                 | 1 |
| 6.  | TC MAYO SCISSORS CVD 140MM                 | 1 |
| 7.  | TC METZENBAUM SCISSORS STR 145MM           | 1 |
| 8.  | TC METZENBAUM SCISSORS STR 180MM           | 1 |
| 9.  | TC METZENBAUM SCISSORS CVD 145MM           | 1 |
| 10. | TC METZENBAUM SCISSORS CVD 180MM           | 1 |
| 11. | ALLIS FORCEPS 4X5 155MM                    | 4 |
| 12. | CRILE FORCEPS STR 140 MM                   | 6 |
| 13. | CRILE FORCEPS CVD 140MM                    | 6 |
| 14. | CRILE FORCEPS STR 160MM                    | 1 |
| 15. | CRILE FORCEPS CVD 160MM                    | 6 |
| 16. | FORCEPS BAYO SMOOTH 185MM                  | 1 |
| 17. | GERALD FORCEPS DEL STR 175MM               | 1 |
| 18. | CUSHING TISSUE FORCEPS 1X2 178MM           | 1 |
| 19. | WAUGH DEL. TISSUE FORCEPS 1X2 180MM        | 1 |
| 20. | CUSHING TISSUE FORCEPS 1X2 178MM           | 1 |
| 21. | WAUGH DEL. TISSUE FORCEPS 1X2 200MM        | 1 |
| 22. | LANGENBECK RETYRACTORSOLID40X10MM<br>230MM | 2 |
| 23. | KOCHER-LENGENBECK RETR 55X11MM 216MM       | 2 |
| 24. | LANGENBECK RETRACTOR 64X20MM 210MM         | 2 |
| 25. | KOCHER-LANGENBECK RETR 70X14MM 216MM       | 2 |
| 26. | CLOWARD TYPE RETRACTOR W/S BLADES 250MM    | 1 |
| 27. | FRAZIER SUCT X-SM 7FR 108MM WRK-LGTH       | 1 |
| 28. | FRAZIER SUCT MED10FR 108MM WRK-LGTH        | 1 |
| 29. | FRAZIER SUCT LRG 12FR 108MM WRK-LGTH       | 1 |
| 30. | FRAZIER SUCT X-SM 7FR 108MM WRK-LGTH       | 1 |
| 31. | FRAZIER SUCT SM 8FR 108MM WRK-LGTH         | 1 |
| 32. | WULLSTEIN RETRACTOR 3X3 BLUNT130MM         | 1 |
| 33. | #2 PENFIELD DISSECTOR 195MM                | 1 |
| 34. | #3 PENFIELD DISSECTOR 195MM                | 1 |
| 35. | #4 PENFIELD DISSECTOR 205MM                | 1 |
| 36. | VOLKMANN BONE CURETTE #0003.6MM 172MM      | 1 |
| 37. | VOLKMANN BONE CURETTE #00 4.4MM 172MM      | 1 |
| 38. | VOLKMANN BONE CURETTE #0 5.2MM 172MM       | 1 |
| 39. | VOLKMANN BONE CURETTE #1 6.8MM 172MM       | 1 |
| 40. | VOLKMANN BONE CURETTE #2 8.5MM 172MM       | 1 |
| 41. | COTTLE PERIOSTEAL ELEVATORCVD 197MM        | 1 |
| 42. | ADSON NERVE HOOK SHARP                     | 1 |
| 43. | ADSON NERVE HOOKBLUNT                      | 1 |
| 44. | CUSHING RONGEUR STR 2X10MM 180MM           | 1 |
| 45. | CASPAR RONGEUR UP-BITE 2MM 155MM           | 1 |
| 46. | CASPAR RONGEUR DWN-BITE 2MM 155MM          | 1 |
| 47. | CLOWARD LAMINA SPREADER 135MM              | 1 |

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| 48.   | INGE LAMINA RETRACTOR 170MM             | 1  |
| 49.   | STILLE-RUSKIN BONE RONGEUR 240MM        | 1  |
| 50.   | LEKSELL-STILLE BONERONGEUR 240MM        | 1  |
| 51.   | LEXER GOUGE PEEK-HDL 7MM 225MM          | 1  |
| 52.   | SPONG GOUGE PEEK-HDLCVD10MM254MM        | 1  |
| 53.   | CAPENER LAMINA GOUGE 6MM WIDE 235MM     | 1  |
| 54.   | TC RYDER NEEDLE HOLDERDELSERR 175MM     | 1  |
| 55.   | TC MAYO-HEGAR NDLHOLDERHVYSERR150MM     | 1  |
| 56.   | TC MAYO-HEGAR NDLHOLDERHVYSERR185MM     | 1  |
| 57.   | TC MAYO-HEGAR NDLHOLDERHVYSERR205MM     | 1  |
| 58.   | LISTON-KEY-HORSLEY BNE-CUTTING FCP254MM | 1  |
| <b>FULL CRANIOTOMY SET-2 sets to be ordered</b> |   |    |
| 1.  | BACKHAUS TOWEL CLAMP 90MM               | 4  |
| 2.  | BACKHAUS TOWEL CLAMP 135MM              | 4  |
| 3.  | SCALPEL HANDLE #3 125MM                 | 1  |
| 4.  | SCALPEL HANDLE #7 ENGLISH NO.5 160MM    | 1  |
| 5.  | RANEY APPLY/REMOVING FCPS F/FF002FF015P | 2  |
| 6.  | RANEY SCALP HEMOST.CLIP PACK OF 25PCS.  | 4  |
| 7.  | DANDY DELICATE FORCEPS CVD140MM         | 10 |
| 8.  | DANDY DEL FCPS LAT-CVD 1X2 140MM        | 10 |
| 9.  | KOCHER FORCEPS STR 1X2 140MM            | 1  |
| 10.   | KOCHER FORCEPS CVD 1X2 140MM            | 1  |
| 11.   | RIGHT ANGLE CLAMP 140MM                 | 1  |
| 12.   | RIGHT ANGLE CLAMP 183MM                 | 1  |
| 13.   | TC MAYO SCISSORS STR 140MM              | 1  |
| 14.   | TC MAYO SCISSORS CVD 140MM              | 1  |
| 15.   | TC METZENBAUM SCISSORS STR 145MM        | 1  |
| 16.   | TC METZENBAUM SCISSORS CVD 145MM        | 1  |
| 17.   | TC METZENBAUM SCISSORS CVD 180MM        | 1  |
| 18.   | CUSHING TISSUE FORCEPS 1X2 178MM        | 1  |
| 19.   | CUSHING TISSUE FORCEPS 1X2 178MM        | 1  |
| 20.   | WAUGH DEL. TISSUE FORCEPS 1X2 200MM     | 1  |
| 21.   | FORCEPS RAMSEY 175MM                    | 1  |
| 22.   | ALLIS FORCEKPS 4X5 155MM                | 4  |
| 23.   | WULLSTEIN RETRACTOR 3X3 BLUNT 130MM     | 1  |
| 24.   | SENN-MILLER RECTOR. SH. 8X7/18X5.5MM    | 1  |
| 25.   | BABY-SENN-MILLER RECTOR.BL.8X7/22X7MM   | 1  |
| 26.   | VOLKMANN RETR4-PRGSHARP9X19MM 222MM     | 1  |
| 27.   | VOLKMANN RETR4-PRGBLUNT8X19MM 222MM     | 1  |
| 28.   | FRAZIER SUCT X-SM 7FR 108MM WRK-LGTH    | 2  |
| 29.   | FRAZIER SUCT MED 10FR 108MM WRK-LGTH    | 2  |
| 30.   | BENDING RESIST. MICRO SUCTION 4FR 100MM | 1  |
| 31.   | BENDING RESIST. MICRO SUCTION 6FR 100MM | 1  |
| 32.   | BENDING RESIST. MICRO SUCTION 6FR 140MM | 1  |

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| 33. | BENDING RESIST. MICRO SUCTION 8FR 140MM      | 1 |
| 34. | ADSON ELEVATOR SHARP FLAT 8MM                | 1 |
| 35. | ADSON ELEVATOR BLUNT CVD 7MM                 | 1 |
| 36. | ADSON RASPATORY CVD. 7MM WI.                 | 1 |
| 37. | ADSON RASPATORY STR. 7MM WI.                 | 1 |
| 38. | ADSON FORCEPS BAY SHAPED 175MM               | 1 |
| 39. | FORCEPS BAYO SMOOTH 185MM                    | 1 |
| 40. | KEY ELEVATOR 180MM 6.4MM BLADE STR           | 1 |
| 41. | VOLKMANN BONE CURETTE #0003.6MM 172MM        | 1 |
| 42. | ECHLIN BONE RONGEURJAW 2X10MM 230MM          | 1 |
| 43. | ECHLIN BONE RONGEUR JAW 3X10MM 230MM         | 1 |
| 44. | ZAUFAL-JANSEN BONE RONGEUR CVD 180MM         | 1 |
| 45. | TROTTER BONE RONGEUR LAT-VCD 205MM           | 1 |
| 46. | KERRISON THIN-FT 130DG-UP 3MM 180MM          | 1 |
| 47. | KERRISON THIN-FT 130DG-UP 4MM 180MM          | 1 |
| 48. | KERRISON THIN-FT 130DG-UP 5MM 180MM          | 1 |
| 49. | SCALPEL HANDLE #7 ENGLISH NO.5 160MM         | 1 |
| 50. | WOODSON PLASTIC FILLING INST 3.2MM 180MM     | 1 |
| 51. | COTTLE HOOK SHARP HVY-CVD 159MM DG 180       | 1 |
| 52. | NERVE SCISSORS CVD S/S 150MM                 | 1 |
| 53. | SCHMIEDEN-TAYLOR DURA SCISSORS 155MM         | 1 |
| 54. | BRAIN SPATULA MOD. AACHEN MALL 7/8MM         | 1 |
| 55. | BRAIN SPATULA MOD.AACHEN MALL 10/11MM        | 1 |
| 56. | BRAIN SPATULA MOD.AACHEN MALL 13/14MM        | 1 |
| 57. | BRAIN SPATULA MOD.AACHEN MALL 16/17MM        | 1 |
| 58. | BRAIN SPATULA MOD.AACHEN MALL 19/20MM        | 1 |
| 59. | BRAIN SPATULA MOD.AACHEN MALL 22/25MM        | 1 |
| 60. | ABDOMINAL BLD. RETRACTOR MALEAB.<br>17X200MM | 1 |
| 61. | ABDOMINAL BLD. RETRACTOR MALEAB.25X250MM     | 1 |
| 62. | BRAIN SPATULA FLAT MALL 11 &13MM 178MM       | 1 |
| 63. | BRAIN SPATULA FLAT MALL 18 &22MM 178MM       | 1 |
| 64. | VENTRICULAR CANNULA DANDY                    | 1 |
| 65. | TC MAYO-HEGAR NDLHOLDERHVYSERR150MM          | 1 |
| 66. | TC MAYO-HEGAR NDLHOLDERHVYSERR205MM          | 1 |
| 67. | HEGAR NEEDLE HOLDER HVY-SERR 150MM           | 1 |
| 68. | ADSON NEEDLE HOLDER FEN-SERR 180MM           | 1 |
| 69. | SCALPEL HANDLE OFFSET 210MM NO. 3            | 1 |
| 70. | SCALPEL HANDLE OFFSET 210MM NO. 3            | 1 |
| 71. | SAMII KNIFE/TUMOR TISSUE1.5MM 230MM          | 1 |
| 72. | SAMII KNIFE/TUMOR TISSRND1.5MM 230MM         | 1 |
| 73. | SAMII LANCET KNIFE TISSUE 1.8MM 230MM        | 1 |
| 74. | HARDY-FAHLBUSCH DISS DWN SHARP 245MM         | 1 |
| 75. | HARDY-FAHLBUSCH DISS DWN SHARP 245MM         | 1 |
| 76. | YASARGIL TUMOR FCPS SERR 3MM 220MM           | 1 |

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| 77.   | MICROFORM TUMOR FORCEPS 3MM 240MM         | 1 |
| 78.   | TREND CUR. HARDY BAYO.D6 130MM 90DG LE-LO | 1 |
| 79.   | HARDY CURETTE MALL D:6/260MM              | 1 |
| 80.   | NICOLA CURETTE MALL RT-CUT 260MM          | 1 |
| 81.   | HUDSON SPHERICAL BURR 22MM DIA            | 1 |
| 82.   | ADSON KPERFORATING BURR 15MM DIA          | 1 |
| 83.   | NICOLA CURETTE MALL LFT-CUT 260MM         | 1 |
| 84.   | TREND CUR. HARDY BAYO.D4 130MM 90DG LE-LO | 1 |
| 85.   | HARDY CURETTE MAL D:4/260MM               | 1 |
| 86.   | TREND CUR.HARDY BAYON.D4 130MM 45DEG LE   | 1 |
| 87.   | YAS.MICRO SCISSDELBAYOSTS/S225MM          | 1 |
| 88.   | YAS.MICRO SCISS BAYOUP-CVDS/S225MM        | 1 |
| 89.   | YASARGIL MICRO SCISS.BAYOSTS/225MM        | 1 |
| 90.   | YAS.MICRO SCISBAYOUP-CVDS/S225MM          | 1 |
| 91.   | YAS.MICRO SCISS BAYOUP-CVDS/S225MM        | 1 |
| 92.   | CASPAR RONGEURSTRSERR 2X12MM 140MM        | 1 |
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| <b>HUDSON CRANIAL DRILL SET- 2 Sets to be ordered</b>   |   |   |
| 1.  | HUDSON DRILL BRACE F/FF055R               | 1 |
| 2.  | HUDSON CEREBELLAR ATTACHMENT F/FF055R     | 1 |
| 3.  | HUDSON BURR 9MM DIA                       | 1 |
| 4.  | HUDSON BURR 14MM DIA                      | 1 |
| 5.  | HUDSON SPHERICAL BURR 16MM DIA            | 1 |
| 6.  | HUDSON SPHERICAL BURR 22MM DIA            | 1 |
| 7.  | HARTMANN MOSQUITO FCPSDELCDV 100MM        | 1 |
| 8.  | CUSHING FLAT DRILL 14MM DIA               | 1 |
| 9.  | CUSHING FLAT DRILL 14MM DIA               | 1 |
| 10.   | HARTMANN MOSQUITO FCPSDELCDV100MM         | 1 |
| 11.   | GIGLI WIRE SAW FINE 6-WIRE550MM           | 2 |
| 12.   | DEMARTEL CONDF/WIRE SAWFLEX350MM          | 4 |
| 13.   | HOOK HANDLE F/WIRE SAWS                   | 2 |
|   |   |   |
| <b>TRANSPHENOIDAL PITUITARY SET 1 set to be ordered</b> |   |   |
| 1.  | BIPOLAR FRCP W/IRRIG CHANNEL .7MM205MM    | 1 |

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| 2.  | KILLIAN SEPTUM SPECULUM SCREW 56X7MM | 1 |
| 3.  | KILLIAN SEPTUM SPECULUM SCREW 70X7MM | 1 |
| 4.  | HARDY DISSECTOR BLUNT/RIGHT 245MM    | 1 |
| 5.  | HARDY DISSECTOR SHARP/RIGHT 245MM    | 1 |
| 6.  | SCALPEL HANDLE OFFSET 210MM NO.3     | 1 |
| 7.  | SCALPEL HANDLE OFFSET 210MM NO.3     | 1 |
| 8.  | HARDY-FAHLBUSCH DISS DWN SHARP 245MM | 1 |
| 9.  | HARDY-FAHLBUSCH DISS DWN SHARP 245MM | 1 |
| 10. | HARDY DISSECTOR BLUNT/RIGHT 245MM    | 1 |

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| 11. | HARDY DISSECTOR BLUNT/RIGHT 245MM        | 1 |
| 12. | LANDOLT CURETTE MALL RND-TIP 260MM       | 1 |
| 13. | HARDY IMPLANT FORKF/HYPOPHSEC 245MM      | 1 |
| 14. | HARDY DISSECTOR BLUNT/RIGHT 245MM        | 1 |
| 15. | TREND CUR.HARDY BAYO.D6 130MM 90DG LE-LO | 1 |
| 16. | HARDY DISSECTOR SHARP/RIGHT 245MM        | 1 |
| 17. | NICOLA CURETTE MALL RT-CUT 260MM         | 1 |
| 18. | HUDSON SPHERICAL BURR 22MM DIA           | 1 |
| 19. | ADSON PERFORATING BURR 15MM DIA          | 1 |
| 20. | NICOLA CURETTE MALL LFT-CUT 260MM        | 1 |
| 21. | LANDOLT CURETTE MAL RND-TIP260MM         | 1 |
| 22. | TREND CUR.HARDY BAYO.D4 130MM 90DG LE-LO | 1 |
| 23. | HARDY CURETTE MAL D:4/260MM              | 1 |
| 24. | TREND CUR.HARDY BAYON.D4 130MM 45DEG LE  | 1 |
| 25. | TREND CUR.HARDY BAYO.D4 130MM 90DG LE-SH | 1 |
| 26. | CUSHING LANDOLT SPECULUM 70X15MM         | 1 |
| 27. | CUSHING LANDOLT SPECULUM 110X15MM        | 1 |
| 28. | CUSHING-LANDOLT SPECULUM 110X15MM        | 1 |

**MICRONEUROSURGERY SET 1 set to be ordered**

|     |  |   |
|-----|--|---|
| 1.  | KRAYENBUEHL NERV HKSHRTBALL-TIP185MM   | 1 |
| 2.  | KRAYENBUEHL NERVE HOOK SMOOTH SM.185MM | 1 |
| 3.  | JACOBSON PROBE W/BALL-TIP185MM         | 1 |
| 4.  | CASPAR MICRO-DISSDWN-CVD2.0MM230MM     | 1 |
| 5.  | BENNETT BONE LEVER 235MM               | 1 |
| 6.  | IRIS FORCEPS X-FINE 1X2 STR 100MM      | 1 |
| 7.  | IRIS FORCEPS X-FINE 1X2HALF-CVD100MM   | 1 |
| 8.  | YAS.MICRO SCISSDEL BAYOSTS/S225MM      | 1 |
| 9.  | YAS.MICRO SCISS BAYOUP.CVDS/S225MM     | 1 |
| 10. | YAS.MICRO SCISSDEL BAYOSTS/S225MM      | 1 |
| 11. | YASARGIL MICRO SCISSORS UP-CVD245MM    | 1 |
| 12. | MICRO-NEEDLE HLDR STR FLAT-HDL184MM    | 1 |
| 13. | MICRO-NEEDLE HLDR CVD FLAT-HDL184MM    | 1 |
| 14. | YAS.MICRO SCISS BAYOUP-CVDS/S225MM     | 1 |
| 15. | YASARGIL MICROFORM BAYO FCPS.6MM240MM  | 1 |
| 16. | YASARGIL MICROFORM BAYO FCPS.9MM240MM  | 1 |
| 17. | MICROFORM TUMOR FORCEPS 3MM 240MM      | 1 |
| 18. | YASARGIL TUMOR FORCEPS 5MM220MM        | 1 |
| 19. | NICOLA FCPS SCOOP-SHP2.5MM DIA165MM    | 1 |
| 20. | MICRO-ADSON FORCEPS SERR 120MM         | 1 |

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| 21. | SCISSORS STR.LENGTH OF SHAFT 165MM  | 1 |
| 22. | SAMII KNIFE/TUMOR TISSUE1.5MM 230MM | 1 |
| 23. | SUCTION CANNULA BARRON 1MM          | 2 |

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| 24.                                     | SUCTION CANNULA BARRON 2MM               | 2 |
| 25.                                     | MICRO-NEEDLE HLDR CVD RND-HDL 185MM      | 1 |
| 26.                                     | YASARGIL MICRO SCISSORS STR 185MM        | 1 |
| 27.                                     | JACOBSON MICRO SCISSORS CVD185MM         | 1 |
| 28.                                     | MICRO SCISSORS 60DG FINE 165MM           | 1 |
| 29.                                     | RND BODY SUTURE FORCEPTSCVD0.6MM180MM    | 1 |
| 30.                                     | ALM RETRACTOR 4X4T SHARP 70MM            | 1 |
| 31.                                     | ALM RETRACTOR 4X4T.SHARP 100MM           | 1 |
| <b>ANEURYSM SET-1 set to be ordered</b> |  |   |
| 1.                                      | DOUBL.BAY.APPLFCPS.STD.TI.110/245MM      | 1 |
| 2.                                      | YASARGIL VARIO A.FCPS.MINI TI.90/220MM   | 1 |
| 3.                                      | DOUBL.BAY.APPL.FCPS.MINI TITAL 110/245MM | 1 |
| 4.                                      | YASARGIL VARIO A.FCPS.STD.TI.90/220MM    | 1 |
| 5.                                      | YASARGIL REMOVER FCPS.MINI.TI.90/220MM   | 1 |
| 6.                                      | YASARGIL REMOVER FCPS.STD.TI.90/220MM    | 1 |

All other terms & conditions remains unaltered.

**Medical Superintendent  
Safdarjung Hospital & VMMC,  
New Delhi.**